

## Dow Contribution to the Public Consultation on draft State Aid Guidelines for the indirect cost compensation for 2021-2030

Dow urges the Commission to consider in its review of the EU ETS State Aid Guidelines the qualitative assessment of NACE 20.16 ('Plastics in primary forms') and of Petrochemicals NACE 20.14 ('other organics') for eligibility for indirect cost compensation. It is our view that both sectors are at risk of carbon leakage due to indirect emissions costs for phase IV of the EU ETS. In light of the European Green Deal and the goal of achieving greenhouse gas neutrality by 2050, carbon leakage regulations must be treated particularly sensitively. During this **transition period** carbon leakage regulations must not prevent important investments, especially in the energy-intensive basic chemical industry at the beginning of important value chains.

Currently, various Dow's production facilities in 20.13, 20.14, and 20.16 are eligible in phase III. As carbon leakage risk **has not decreased** it is our maintained viewpoint that those sectors need to be eligible during 2021-2030. Moreover, the criteria for limiting the list of sectors eligible for compensation seems to be arbitrary and the European Commission hasn't plausibly explained the reasons for changing the criteria relative to period III. We therefore generally question the approach to limit the list of eligible sectors.

### 1. Sector eligibility for indirect cost compensation

- NACE 20.14 and NACE 20.16 require a qualitative assessment:

The European Commission expresses in its explanatory note accompanying the proposal for the revision of the Emission Trading System Guidelines that it "(...) *may decide to include additional sectors, in light of the feedback and evidence received in the public consultation, based on qualitative considerations provided the sectors concerned have at least an indirect carbon leakage indicator of 0.2 and that their carbon leakage risk as evaluated by the consultant in the study is at least medium.*"

Dow appreciates the possibility to include NACE 20.16 on the basis of the criteria suggested and we fully support the qualitative considerations provided by PlasticsEurope, which in our view necessitates the inclusion of NACE 20.16. It is important to highlight that plastics have a high trade exposure and can't pass through indirect ETS costs. This is due to several factors such as a global pricing regime for commodity polymers and the strong competition in main market segments that results from the fact that polymers' characteristics are easily met by producers and customers can easily switch purchases from one supplier to another. Consequently the risk for carbon leakage remains particularly high for this sector.

Dow advises the European Commission to also consider borderline sectors, such as NACE 20.14, to be considered for a deeper qualitative analysis. We recommend consistency with the approach taken for qualitative assessments for establishing the third carbon leakage list<sup>1</sup> in the revised ETS Directive. Any sector with an indirect emission intensity exceeding 0.15 should be considered for inclusion into Annex 1 of the ETS state aid guidelines on a basis of a qualitative assessment.

Dow is also aligned with the view of the German Chemical Association VCI on the need to adjust the eligibility threshold value of 0.2 to only account for indirect emissions. The threshold value currently used includes both direct and indirect emissions, yet the average of indirect emissions across all sectors of the economy sums up to only 31%. The indirect

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<sup>1</sup> Article 10b(2) of the revised ETS Directive (2018/410/EU)

emissions indicator and the threshold value should be comparable by only referring to indirect emissions and we therefore recommend an adjustment of the threshold value.

- Over-reporting of GVA and underestimation of electricity consumption for NACE 20.14:

Dow also shares the concern of CEFIC concerning the reliability and quality of the data used to calculate the indirect emission intensity. Various studies cited by CEFIC indicate that the electricity consumption data of NACE 20.14 is underestimated.

In addition, we share the concern of the reporting issue concerning large-scale integrated chemical sites. Large sites producing multiple products across various NACE codes oftentimes are reported under a single NACE code which eventually leads to a reporting of inflated GVA values for NACE 20.14.

Given this poor data quality underlying the indirect emission intensity indicator for NACE 20.14, the accuracy of the calculated indirect emission indicator of 0.191 is questionable and we recommend to take other qualitative criteria into consideration to determine the eligibility of NACE 20.14.

- Cumulative effect of sector eligibility on integrated chemical value chains:

Chemical value chains in Europe are highly integrated with activities ranging from NACE 20.13 (e.g. chlorine production for later use in e.g. PVC), NACE 20.14 (e.g. ethylene and propylene production as prime building blocks for several plastics families), to NACE 20.16 for the manufacturing of polymers.

Large integrated chemical companies, such as Dow, operate in various parts of the value chain and leverage its integration. Dow operates 5 large scale crackers (NACE 20.14) in Europe that are integrated in chemical value parks and produce building blocks, such as ethylene or propylene, for further processing within NACE 20.14 or other chemical subsectors, notably for the production of polymers in NACE 20.16.

Dow operates various polyethylene production trains (NACE 20.16) in its integrated value parks in Spain, the Netherlands, and Germany that produce valuable polymers, which are used for applications that are crucial to achieve the climate-neutrality objective of the European Union, such as light-weighting materials for the automotive sector.

Given this integrated nature, excluding various segments of the chemical value chain from eligibility for indirect cost compensation would result in a cumulative increase in the costs of production of polymers and other chemical value chains in Europe, thereby exacerbating the risk of carbon leakage and market share erosion to extra EU-imports. Electricity price compensation as a measure to address the existing competitive disadvantages in a global context remains of utmost importance for integrated sectors such as 20.14 and 20.16.

- Maintaining level playing field within the petrochemical industry:

In order to avoid competition distortion within the petrochemical sectors, the interchangeability of fuel and electricity for steam crackers must be properly acknowledged. Where two installations have the same benchmarks and fuel/electricity interchangeability (e.g. NACE 20.14 has 4 products with exchangeability of fuel and electricity) a level playing field must be ensured.

Dow recommends that all carbon leakage exposed sectors with product benchmarks which face exchangeability of electricity as a special provision should be eligible for indirect cost compensation.

- Low-carbon transformation of petrochemical and plastics industry requires indirect cost compensation:

Electrification of industrial heat production and of main chemical production processes, such as the use of electric furnaces in crackers, are widely acknowledged by numerous stakeholders including industry, civil society<sup>2</sup>, and European institutions<sup>3</sup> as key technologies to enable the industrial transformation in support of the EU climate neutrality targets.

A shift towards electrification of NACE 20.14 is currently being actively studied by industry.

By developing new electro-intensive processes, industry will require access to low carbon electricity in large and reliable volumes at competitive costs to enable the industrial transformation. The related replacement of fossil energy with electricity in the foreseeable future will likely shift the cost burden of industry from direct GHG emission costs towards indirect GHG emissions costs.

Excluding NACE 20.14 from indirect cost compensation is detrimental to industry efforts to electrify industrial processes and reduce industrial emissions in support of the EU climate neutrality target. It discourages required investments in research, development and pilot plants as it threatens emerging sustainable business and production models by imposing additional costs on it.

## **2. CO<sub>2</sub> emission factor**

Dow welcomes the decision to introduce a separate regional CO<sub>2</sub> emission factor for Germany, which recognizes the fact that electricity trade between two member states doesn't automatically imply that they constitute a supranational region. This regional differentiation is an improvement.

However, the actual cost burden is still only partially recognized by the weighted average of CO<sub>2</sub> intensity of electricity produced in an area. A more realistic CO<sub>2</sub> factor should be based on the CO<sub>2</sub> intensity of the price setting marginal power plant in the merit order.

## **3. Aid intensity**

- 75% upper threshold limits effectiveness of cost compensation:

Dow is concerned about the limitation of aid to 75% of the incurred indirect costs. Insufficient levels of compensation will systematically disadvantage domestic electro-intensive European manufacturing, such as chlor-alkali production, and risk the drive towards industrial low-carbon transformation via electrification of production processes. It is important to emphasize that the need for indirect cost compensation is based on real competitive disadvantages for European industry and a partial compensation limits the effectiveness of the measure.

- Electricity consumption efficiency benchmarks need to be established in cooperation with industry stakeholders:

The calculation determining the amount of compensation applies a benchmark representing the most electricity-efficient technology available on the market. When establishing the benchmarks, industry should be consulted in order to ensure that benchmarks reflect technological realities and can be realistically achieved at plant level. However, aid intensity

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<sup>2</sup> E.g. Material Economics, Industrial Transformation 2050, p.110 ff.

<sup>3</sup> E.g. In-depth analysis in support of the Commission Communication COM (2018) 773, p.143 ff.

of 75% implies that even the best in class does not receive full compensation and will be subject to significant carbon leakage.

- Adjustment in electricity consumption for sectors using the fall-back benchmark should encourage efficiency improvements:

The proposed allocation of aid using the fall-back electricity consumption efficiency benchmark has a reversed incentive effect as it discourages energy efficiency improvements by making the maximum amount of aid a multiple of actual electricity consumption. We propose to follow an approach similar to the rules established for adjustment of free allocation due to activity level changes<sup>4</sup> to correct this effect and incentivize efficiency improvements: where an operator demonstrates that the change in electricity consumption is due to increased energy efficiency, the consumption data prior to the efficiency improvement should be used to determine the maximum amount of aid.

- Compensation on the basis of % of gross value added needs to benefit companies:

Dow appreciates the newly established option for Member States to compensate undertakings up to a certain % of the gross value added, recognizing that the 75% of aid intensity may not provide adequate carbon leakage protection for many sectors. This measure should be applied in a way that benefits firms and doesn't reduce the amount of indirect cost compensation relative to the conventional calculation method using the 75% aid intensity factor.

#### **4. Energy audits and management systems**

DG COMP's draft guidelines suggest energy audits and management systems and far-reaching obligations as a condition for granting indirect compensation aid. Other legislation such as the EU Energy Efficiency Directive already set requirements on energy efficiency and an efficiency incentive is provided already through electricity consumption efficiency benchmarks.

Dow believes it is obsolete obliging Member States to verify compliance with energy audits and additional mandatory implementation of audit recommendations. Such a measure would only increase the administrative burden without helping to compensate the existing disadvantages – so it does not serve the intended purpose of the state aid measure. State aid as compensation of EU policy costs should **not** be made conditional to obliging companies' use of the aid received (for on-site renewable energy generation, carbon-free power purchase agreements, investment in emission reduction projects).

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<sup>4</sup> COMMISSION IMPLEMENTING REGULATION (EU) 2019/1842 Art.6